

PhD post in Composite Materials and Structures at Imperial College London

About the Post

Applications are invited for a PhD scholarship in the Department of Civil and Environmental Engineering at Imperial College London. Candidates who have research experience in the following areas are encouraged to apply.

(1) Cement chemistry. Relevant research experiences include geopolymers, supplementary cementitious material, pozzolanic reactivity, hydration characterization. Students in this area will be working on a project about recycling of waste composite materials for making low carbon concrete.

(2) polymer synthesis. Relevant research experiences include polymerization, nano modification, crystallinity control, gas permeation.

(3) Reactive molecular dynamics simulation of polymer composites. Students in area 2, 3 will be working on a project about hydrogen storage using polymer composites.

The students will join the Composite Materials and Structures research group led by Dr. Wu in the Materials Section of the Department of Civil and Environmental Engineering, which is the largest and most highly rated civil engineering department in the UK. The students will benefit from world-class facilities in the new [Imperial Centre for Infrastructure Materials](#), created and equipped with £5.4M from EPSRC/UKCRIC. Besides, the research projects will build upon existing collaborations with leading academics in the UK and overseas.

Requirements

Applications will not be considered unless the following requirements are satisfied:

- A good Upper Second or First Class Degree (or [International equivalent](#)), in an engineering discipline, such as material, chemistry, mechanics, civil structural or closely-related disciplines.
- A Masters level degree qualification.
- English language requirements (e.g. IELTS 6.5 overall, minimum 6.0 in all elements).

Students who demonstrate the following are encouraged to apply:

- Research experience with high quality publications.
- Well organised and ability to work independently.
- Ability to learn new skills and build relationships with new people in an effective manner.
- Familiarity with numerical modeling, i.e. finite element, molecular dynamics, coarse grain modelling.
- Experience in coding with Fortran, Matlab, Python or other programming languages.

About the Funding

The studentship will provide funding for up to 3.5 years, including Home tuition fees (3 years) and a tax-free stipend at the standard UKRI London rate, currently £19,668, for 3.5 years. Full funding is available to Home students. The funding can also be used to partly support an international student.

Other scholarships can be found in the university website:

Imperial College London

<https://www.imperial.ac.uk/study/pg/fees-and-funding/scholarships/>

How to Apply

Applicants wishing to be considered for these opportunities should send the following application documents in a single PDF file to Dr Wu at c.wu@ic.ac.uk

- Cover letter, explaining their motivation and suitability by addressing the requirements.
- CV, including UG and MSc transcripts with average grades, class ranking and research experience.
- English testing results, i.e. IELTS or TOFEL (if any).
- Contact details of two referees (including name, affiliation, phone number and email address).

Review of applications will begin immediately and continue until the positions are filled.